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DARTMOUTH COLLEGE



THE AMOS TUCK SCHOOL OF ADMINISTRATION AND FINANCE

DARTMOUTH COLLEGE BULLETIN

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Hanover, New Hampshire

April, 1914

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ANNOUNCEMENT

OF

THE AMOS TUCK SCHOOL

OF

ADMINISTRATION AND FINANCE

ASSOCIATED WITH

Dartmouth College

FOR THE YEAR

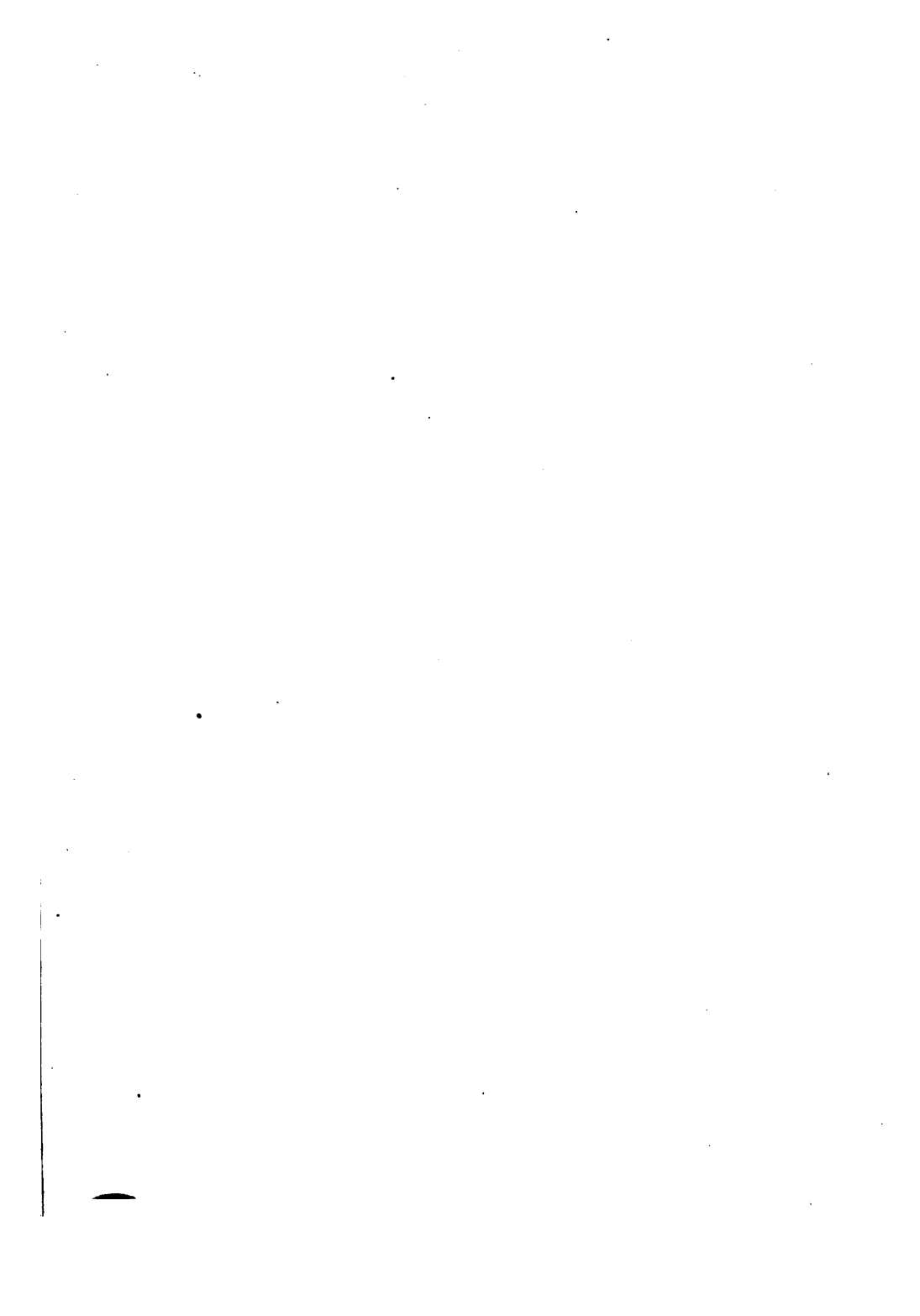
1914-1915

HANOVER, NEW HAMPSHIRE

1914



"In the conduct of the school to which you have done my father's memory the honor of attaching his name, I trust that certain elementary but vital principles, on which he greatly dwelt in his advice to young men, whether entering upon a professional or business career, may not be lost sight of in the variety of technical subjects of which the regular curriculum is composed. Briefly, these principles or maxims are: absolute devotion to the career which one selects, and to the interests of one's superior officers or employers; the desire and determination to do more rather than less than one's required duties; perfect accuracy and promptness in all undertakings, and absence from one's vocabulary of the word 'forget'; never to vary a hair's breadth from the truth or from the path of strictest honesty and honor, with perfect confidence in the wisdom of doing right as the surest means of achieving success. To the maxim that honesty is the best policy should be added another: that altruism is the highest and best form of egoism as a principle of conduct to be followed by those who strive for success and happiness in public or business relations as well as in those of private life."—*From a letter of MR. EDWARD TUCK to PRESIDENT TUCKER.*



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CALENDAR

FIRST YEAR

1914

September 24 Year begins—Thursday morning.
November 26 Thanksgiving Day—Holiday.

Recess from December 18, 1 P.M., to January 5, 8 A.M.

1915

January 25 to February 3 . . . First Semester Examinations.
April 2 to April 15 Easter Recess.
June 7 to June 17 Second Semester Examinations.

SECOND YEAR

1914

September 24 Year begins—Thursday morning.
November 26 Thanksgiving Day—Holiday.

Recess from December 18, 1 P.M., to January 5, 8 A.M.

April 16 to 23 Final Examinations.
April 23 Second Year ends.

OFFICE HOURS

DIRECTOR — Harlow S. Person — Room A, Tuck Hall, 9–10 A. M.,
each week day.
SECRETARY — William R. Gray — Room A, Tuck Hall, 11–12 A. M.,
each week day.

THE TUCK SCHOOL FACULTY

ERNEST FOX NICHOLS, D.Sc., LL.D., PRESIDENT.

HARLOW STAFFORD PERSON, Ph.D., DIRECTOR, and *Professor of Business Organization and Management.*

WILLIAM RENSSELAER GRAY, B.L., M.C.S., SECRETARY, and *Assistant Professor of Accounting.*

WILLIAM HENRY MURRAY, A.B., *Assistant Professor of French, German and Spanish.*

WALTER HASTINGS LYON, A.B., LL.B., *Professor of Corporation Finance and Commercial Law.*

HENRY WOOD SHELTON, A.B., *Assistant Professor of Business Organization and Management.*

ALFRED LESLIE SMITH, B.S., M.C.S., *Instructor in Commerce.*

FRANK HAIGH DIXON, Ph.D., *Professor of Economics in Dartmouth College.* (TRANSPORTATION AND INDUSTRIAL ORGANIZATION.)

CHESTER ARTHUR PHILLIPS, A.M., *Assistant Professor of Economics in Dartmouth College.* (BANKING.)

SUPPLEMENTARY LECTURES

1913-1914

ROGER W. BABSON, President, Babson's Statistical Organization, Wellesley Hills, Mass. Subject:
Fundamental Statistics of Business.

WILLARD C. BRINTON, Mechanical Engineer, New York. Subjects:
Standardization in Graphic Statistics.
Applications of Graphic Statistics.
Graphic Statistics in Business Management.
Harbor Conditions and Port Development.

FRANK B. GILBRETH, Consulting Engineer, New York and Providence. Subjects:
Diagnosis of the Problem of Management.
The New Learning Process in Management.

HARRY B. GILMORE, Manager, Western Electric Company, Boston. Subjects:
Problems and Organization of a Merchandise Department.
Sales Organization and Methods of a Distributing Branch.

ALBERT HALE, Chief Compiler, Pan American Union, Washington, D. C. Subject:
Transportation Conditions in South America.

W. HASTINGS LYON, Assistant Counsel, Investment Bankers Association. New York. Subject:
The Federal Income Tax.

ROBERT W. MARTIN, Wm. E. Read & Company, Bankers, New York. Subjects:
Railroad Finance.
Business Apprenticeship.

EMMETT H. NAYLOR, Secretary, Board of Trade, Springfield, Mass.

Subjects:

The Commercial Organization—Function and Structure.

The Commercial Executive.

The Commercial Organization in Motion.

Industrial Development of the Municipality.

CHESTER A. PHILLIPS, Assistant Professor of Economics, Dartmouth

College. Subject:

Pending Currency Legislation.

D. SIDNEY ROLLINS, Manager, Richards Woolen Mills, Newport, N. H.

Subject:

Labor Problems.

JAMES SHELDON, Manager, Lee, Higginson & Company, New York.

Subject:

Phases of Investment Banking.

GEORGE S. WORCESTER. Subjects:

Resources of the Philippine Islands.

Pioneer Farming in the Philippines.

WILLIAM M. WHERRY, Jr., Counsellor-at-law, New York. Subjects:

Principles of Public Utilities Bills.

The Indeterminate Permit.

Some Phases of Efficiency.

STUDENTS

1913-1914

SECOND YEAR

Name	Residence
Badger, Ralph Eastman, A.B.	<i>Lowell, Mass.</i>
Blanchard, Maurice Leland, B.S.	<i>Newport, Vt.</i>
Carr, Russell, B.S.	<i>Winchester, Va.</i>
Fox, Grover Franklin, A.B.	<i>Lowell, Mass.</i>
Gale, Louis Bernard, B.S.	<i>Marblehead, Mass.</i>
Gulick, Edward Leeds, Jr., A.B.	<i>Hanover, N. H.</i>
Lenfestey, Nathan Coggeshall, B.S.	<i>Marion, Ind.</i>
Meleney, Clarence Coit, A.B.	<i>Brooklyn, N. Y.</i>
Merrill, Henry Wadleigh, B.S.	<i>Concord, N. H.</i>
Sauer, Philip Allein, B.S.	<i>Columbus, Ohio.</i>
Shepard, Alan Bartlett, A.B.	<i>East Derry, N. H.</i>
Sides, Edwin Everett, A.B.	<i>South Groveland, Mass.</i>
Terry, William Bradford, A.B.	<i>Cambridge, Mass.</i>
Thompson, Dean Alan, A.B.	<i>Orange, Mass.</i>
Tuck, Harold Stuart, A.B.	<i>Quincy, Mass.</i>
Warren, Howard Porter, B.S.	<i>Keene, N. H.</i>
Weil, Frank Taylor, A.B.	<i>No. Andover, Mass.</i>
Willson, Earl Van Kuren, A.B.	<i>Rutland, Vt.</i>
Winship, Kendall, A.B.	<i>Melrose, Mass.</i>

FIRST YEAR

Austin, Herbert Scott	<i>Wellesley, Mass.</i>
Barnes, William Warren	<i>Portland, Me.</i>
Beals, Geoffrey Houghton	<i>Worcester, Mass.</i>
Briggs, George Elihu, Jr.	<i>New Bedford, Mass.</i>
Buck, Ellsworth Brewer	<i>Chicago, Ill.</i>
Chandler, Clyfton	<i>Plymouth, Mass.</i>
Colby, Dudley Ray	<i>Manchester, N. H.</i>
Crandall, Charles Newton	<i>Montpelier, Vt.</i>
Curtis, Howard Spencer	<i>Warren, Mass.</i>
Daley, Walter Ford	<i>Hamilton, Mass.</i>

Name	Residence
Day, Joseph Lawrence	<i>Portland, Me.</i>
Donovan, Frank Herbert	<i>Lynn, Mass.</i>
Field, John Harold	<i>Milltown, Me.</i>
Frost, George Waite	<i>Roxbury, Mass.</i>
Full, Henry Pingree	<i>Pigeon Cove, Mass.</i>
Fuller, Guy Edson	<i>Springfield, Mass.</i>
Harris, William Allen, Jr.	<i>Springfield, Mass.</i>
Ph.B. (Yale 1910)	
Hazen, John Norman	<i>Hanover, N. H.</i>
Hyde, Lloyd George (South Dakota Agri. Coll. 1913)	
Jones, Francis Freeman, 2d	<i>Brookings, S. D.</i>
Kimball, Ernest LaMonte	<i>New Bedford, Mass.</i>
Leech, Charles Edward	<i>Cambridge, Mass.</i>
Little, Lester Knox	<i>Whitinsville, Mass.</i>
Loudon, Paul Witmer	<i>Pawtucket, R. I.</i>
Lyons, Walter Lawrence	<i>Troy, N. Y.</i>
Maxwell, Alvin Wesley	<i>Jamaica Plain, Mass.</i>
Netsch, Walter Andrew	<i>Lynn, Mass.</i>
O'Connor, Charles William Francis	<i>Manchester, N. H.</i>
Palmer, John Philip	<i>Worcester, Mass.</i>
Peppard, John Tufts	<i>Portsmouth, N. H.</i>
Perkins, Paul Livingston	<i>Plymouth, N. H.</i>
Portmann, Arthur Ball, A.B. (Western Re- serve Univ. 1913)	<i>Lowell, Mass.</i>
Spore, Leland Porter	<i>Cleveland, Ohio.</i>
Therrien, Zotique Wilfred	<i>Sandusky, Ohio.</i>
Voorhees, Enders McClumpha	<i>Manchester, N. H.</i>
Watkins, George Francis	<i>Amsterdam, N. Y.</i>
Wheatley, George Dudley	<i>Wolfeboro, N. H.</i>
Wood, Bertram Cogswell	<i>No. Abington, Mass.</i>
Young, George, Jr.	<i>Troy, N. Y.</i>
	<i>Clifton, N. J.</i>

GENERAL STATEMENT

FOUNDATION

Under the terms of the Amos Tuck Endowment Fund, the gift by Mr. Edward Tuck of the Class of 1862, of the sum of three hundred thousand dollars as a memorial to his father, the Honorable Amos Tuck of the Class of 1835, and a Trustee of the College from 1857 to 1866, especial provision was made for the "establishment of additional professorships within the College proper or in graduate departments." In accordance with this provision of the endowment fund for additional instruction in undergraduate and graduate courses, and with the direct approval of the donor, the Trustees of Dartmouth College established, in January, 1900, the Amos Tuck School of Administration and Finance.

By a second gift of one hundred and forty thousand dollars Mr. Tuck made provision for the erection and maintenance of a building for the uses of the School. This building was occupied in September, 1904.

ORGANIZATION

The Amos Tuck School of Administration and Finance is one of the associated graduate professional schools of Dartmouth College. A two years' course in business administration is offered to men who have met the requirements for admission. Students of approved colleges and universities who have completed with satisfactory grade three years of college work, including the courses prescribed for admission to the School, may be admitted to the First Year. The work of the Second Year is strictly graduate in character.

First Year students whose preparation is sufficient to admit them to regular standing in the Senior Class of Dartmouth College are enrolled in the College as well as in the Tuck School, and may, upon completion of the First Year, receive the bachelor's degree from the College.

The Tuck School confers the degree of Master of Commercial Science upon regular students who complete the two years' course.

AIM

The Tuck School aims, in general, to offer a professional training in those fundamental facts and principles of business, a knowledge of which is essential in business, but which the complexities of modern routine tend to make obscure to one who is dependent upon experience alone for gaining such knowledge. The subject matter of instruction is designed to be broadly and directly applicable in business experience, and is offered as a preparation, not as a substitute for experience.

The School admits men who have received the advantages of a liberal college training and whose records give evidence of intellectual power and the capacity for serious application.

For such a selected group of men the School aims, in particular,

1. To afford a general training primarily concerned with those functions to which the problems of business management are closely related, which are common to all business, and a knowledge of which it is believed will enable graduates of the School more effectively to interpret the lessons of business experience and more readily to develop the capacity for recognizing and solving business problems. Upon the principle that the requisite qualities of adaptability and resourcefulness are more highly developed through a training which may be characterized as broad and fundamental, than through a training which emphasizes narrower specialized study of a particular business, the details of which are more practicably and accurately to be learned in later experience, the School gives emphasis in both the First and Second Years to groups of basic courses required of all students.

Reference to the description of courses will indicate the purpose to place especial emphasis upon that group of basic courses which consider the management and administrative control of the primary functions of production and distribution. Supplementary to this principal group of courses, the School aims, furthermore, (a) to provide the tools of successful management, through groups of basic courses in accounting, statistics and commercial usages of foreign languages; and (b) to give a discriminating understanding of the significant facts and principles surrounding the problems of administrative activity, through such groups of required courses as corporate organization and finance, banking, commercial law, resources and industries, etc.

2. To afford additional specialized training through elective courses, related to required courses, but involving more intensive study of certain business functions than is provided by the more general basic courses, as an aid to those students preparing for business services which have become highly specialized, such as are represented by the accountant, business statistician, commercial executive, foreign exchange banker, etc.

3. To ensure greater intensiveness of training in accuracy of observation, and in thoroughness in method for prolonged investigation, as well as a more highly specialized preparation for service in specific businesses than is afforded by the regular courses of instruction, through the requirement of a thesis which calls forth originality in analysis and independence of judgment in the application of principles to the solution of concrete business problems.

4. To introduce the student into the atmosphere of business life by enlisting the active co-operation of business men in the work of instruction, and by providing opportunity for first-hand study of business operations; in that way helping him to enter into the spirit of business life and to overcome the difficulties of adjustment ordinarily experienced by the college graduate entering business.

5. To maintain standards of instruction which, through intimate contact between student and instructor, inspire and develop in each student an appreciation of the value of thoroughgoing accuracy, initiative, and sound judgment in business performance.

6. To encourage the student to appraise the opportunities and requirements of the various business vocations, to examine himself in the light of his aptitude for specific work, and to select the field of service for which he seems best fitted. While the School assumes no responsibility for securing positions for its graduates, it endeavors to introduce students of approved ability and character into the service of business concerns that offer opportunities for advancement.

REQUIREMENTS FOR ADMISSION

CANDIDATES FOR DEGREES

I. GRADUATES OF COLLEGES. Graduates of approved colleges are admitted to the First Year as regular students, candidates for the degree of Master of Commercial Science upon completion of the full course of two years.

II. STUDENTS OF THREE YEARS UNDERGRADUATE STANDING. Students who present credentials indicating that they have pursued creditably three years of undergraduate work in any approved college are admitted to the First Year as regular students, candidates for the bachelor's degree upon completion of the First Year, and for the degree of Master of Commercial Science upon completion of the Second Year, subject to the following conditions:

1. In order to ensure adequate preparation for the work of the Tuck School, the three years of undergraduate work must include the following:

- (a) Twelve semester hours in Economics.
- (b) Six semester hours in English Composition.
- (c) The equivalent of a Minor in the Modern Language which is to be continued in the Tuck School, *i. e.*, twelve semester hours in courses of at least third-year grade (see Dartmouth College Catalogue). But for students who plan to continue Spanish in the Tuck School, and who have met the requirements in either French or German, one year of Spanish will be accepted. It is recommended that the work in Modern Language include courses in advanced composition and conversation.
- (d) Six semester hours in Political Science or American History. For their broad educational value, as well as for their utility as preparation for Tuck School work and for later business experience, the following subjects are recommended: Advanced English Composition and Argumentation, Advanced Mathematics, Logic, Psychology, Sociology.

2. For admission without examination, the records of the applicant must show an average standing of not less than 70 per cent for all courses taken during the three undergraduate years. Students whose records do not meet this requirement will be admitted upon examination only.

3. CANDIDATES FOR THE BACHELOR'S DEGREE OF DARTMOUTH COLLEGE. Students admitted to the First Year as candidates for the bachelor's degree of Dartmouth College must meet the requirements for admission to the Senior Class of the College, including all courses specifically required for the bachelor's degree, as follows:

- (a) *Students of Dartmouth College.* The work of the First Year being equivalent to a Major in Group III of the College, students of Dartmouth College should have completed Minors in Groups I and II. Candidates for the B.S. degree should have completed all requirements in Group II.
- (b) *Students of Other Colleges.* Applicants of three years' standing in other institutions should have completed in college, as candidates for the A.B. degree, six semester hours in Latin and twelve semester hours in one, or six semester hours in each of two of the following sciences: Mathematics, Physics, Chemistry, or Biology; as candidates for the B.S. degree they should have completed in college thirty semester hours in science, including at least six semester hours each of Mathematics, Physics, Chemistry, and Biology, and six semester hours in the Modern Language not offered as a Minor (see above).

4. CANDIDATES FOR THE BACHELOR'S DEGREE OF OTHER INSTITUTIONS. Provided they have met the requirements for admission to the Tuck School, students of other colleges, who desire to maintain, as graduates, their established collegiate affiliations by receiving the bachelor's degree of their respective institutions, and whose respective faculties will accept credit for the First Year of the Tuck School as the equivalent of credit for the Senior Year of those institutions, may be admitted to the First Year, but will not be enrolled as Seniors in Dartmouth College. Upon completion of the work of the First Year, a certificate of credit will be transmitted to the respective colleges. Such students may receive the degree of Master of Commercial Science by completing the work of the Second Year.

SPECIAL STUDENTS

Applicants may be admitted as special students, not candidates for a degree, under the following conditions:

I. GRADUATES OF COLLEGES. Graduates of approved colleges may be admitted to a special one-year course and may pursue studies selected from the work of both the First and Second Years.

II. NON-GRADUATES. Applicants who are unable to meet the requirements for admission, but whose business experience is such as to give evidence that they can pursue profitably and satisfactorily the work of the School, may be admitted either to a special one-year course or to a two-year course.

APPLICATION FOR ADMISSION

Applications for entrance to the Tuck School are to be filed with the Director on blanks provided for the purpose.

Applications must be approved by the President of the College and the Director of the Tuck School before the applicant can be admitted. In determining the fitness of students for entrance, in addition to previous scholarship in the subjects required for entrance, as indicated by the records presented, business aptitude and experience, and other facts indicating an ability to pursue profitably the work of the School are made the basis of judgment.

An ability to write letters and reports, reasonably correct as to spelling, grammar, syntax, and form, is required of all students, and *is made a condition for graduation.*

ORGANIZATION OF COURSES

The work of the two years of the School is considered a unit, but may be conveniently divided as follows:

1. **THE FIRST YEAR.** The courses of this year are foundational, in that they consider phases of business common to all business, and are required of all students.

2. **THE SUMMER VACATION BETWEEN THE FIRST AND SECOND YEARS.** Unless particular circumstances make it impossible, the School requires that each student seek employment during this period with a business institution. The student can thereby familiarize himself with the routine methods of one firm; can receive the benefit of the discipline of business service; can take advantage of the opportunity for observation and analysis in connection with thesis requirements; and in general can prepare himself to derive the largest benefit from the work of the Second Year.

3. **THE SECOND YEAR.** Many courses of this year consider phases common to all business and are required of all students. Several of the courses of the year, however, are elective and present opportunity for specialization. The student may so elect as to prepare himself for the general field of business; or he may so elect as to prepare himself for a particular field of business, such as manufacturing, merchandising, banking, etc.; or he may elect to prepare for a specialized business function not pertaining to any particular business, such as business statistics, accounting, etc. Through the thesis, required of each student and representing carefully directed investigation, opportunity is afforded for further intensive study into a particular business for which a student may elect to prepare himself; for example, a student preparing for service in the textile industry may study for his thesis certain problems of textile concerns; a student interested in investment banking may base his thesis on phases of that business; or, if he is preparing for advertising service, his investigations may be directed to that field. The work of the year is flexible, and each student's electives may be adapted to his particular needs and aims. In the work of this year, moreover, constant endeavor is made to afford instruction through personal conference between student and instructor, as well as through group instruction.

SPECIALIZATION AND RELATED GROUPS OF COURSES

The following tabulation shows the Groups of Courses (hereafter described) which students may select for their respective major fields of study, and suggests the principal classes of business service for which preparation may be desired, with the related Groups of Courses. Each student is expected to choose a thesis subject related to his major group and to conduct thesis investigation under the supervision of instructors in charge of that group.

GROUPS OF COURSES:	BUSINESS SERVICES:
1. ACCOUNTING	General Accounting Public Accounting Cost Accounting
2. MODERN LANGUAGE	Foreign Correspondent
3. STATISTICS	Business Statistics and Research
4. BUSINESS PROCEDURE AND MANAGEMENT	General Business Merchandising Manufacturing Salesmanship Advertising Buying Scientific Management
5. FINANCIAL ORGANIZATION AND ADMINISTRATION	Investment Banking Brokerage Financial Journalism
6. COMMERCE AND INDUSTRY	Exporting Importing Chamber of Commerce Trade Associations Commercial Teaching Trade Journalism Consular Service
7. BANKING	General Banking Foreign Exchange Trust and Savings Banking Note Brokerage
8. TRANSPORTATION	Railroad Service

COURSES OF THE FIRST

FIRST YEAR

FIRST SEMESTER	HRS.	SECOND SEMESTER	HRS.
ACCOUNTING:			
Accounting A	3	Accounting B	3
MODERN LANGUAGE:			
French A <i>or</i>	} 2	French B <i>or</i>	} 2
German A <i>or</i>		German B <i>or</i>	
Spanish A		Spanish B	
STATISTICS:			
Statistics A	2	Statistics B	2
BUSINESS PROCEDURE, ETC.:			
Business Procedure A	1	Business Procedure B	1
		Principles of Business	
		Management	3
FINANCIAL ORGANIZATION, ETC.:			
Industrial Organization A	3		
COMMERCE AND INDUSTRY:			
Resources and Industries of the United States	4	Resources and Industries of Foreign Countries	4
BANKING:			
Money and Banking	3		
		TRANSPORTATION:	
		Transportation A	3

AND SECOND YEARS

SECOND YEAR

FIRST SEMESTER	HRS.	SECOND SEMESTER	HRS.
ACCOUNTING:			
Accounting C	2	Accounting D	2
Accounting E	2	Accounting F	2
MODERN LANGUAGE:			
French C or	} 2	French D or	} 2
German C or		German D or	
Spanish C		Spanish D	
		STATISTICS:	
		Statistics C	2
BUSINESS PROCEDURE, ETC.:		Scientific Management	
Scientific Management	2	—in Distribution	3
		—in Manufacturing	3
FINANCIAL ORGANIZATION, ETC.:			
Corporation Finance and Investments	4		
COMMERCE AND INDUSTRY:			
Functions and Organization of Chambers of Commerce	2	Foreign Commerce of the United States	2
		Resources, Industries and Commerce of Latin America	2
BANKING:			
Banking Problems and Relations	2	Banking Practice	2
		Foreign Exchange	2
LAW:			
Commercial Law	4	TRANSPORTATION:	
		Railroad Statistics	2
THESIS		THESIS	

The courses in italics are elective; all others are required.

DESCRIPTION OF COURSES

ACCOUNTING

A and B. *Accounting Principles and Procedure.*

Professor GRAY.

First Year, First and Second Semesters, 3 hrs.

These are required courses designed to provide a foundation upon which a thorough knowledge of the functions, terminology, principles and methods of accounting may be developed.

(a) The work of the year is introduced by a study of the structure of a business concern to determine the nature of the elements measurable in accounts: forms and phases of proprietorship; capital and revenue; the principal classes of accounts; the equations of accounting; the dual effect of transactions and of changes in values; the principles of valuation; functions and content of the Balance Sheet and Income Account. It is the aim of this preliminary work to afford a broad perspective of accounting principles and to induce the student to interpret business transactions in the light of their effect upon the Balance Sheet and Income Account. Lectures are supplemented by numerous problems in the application and definite expression of principles.

(b) The introductory work is followed by a study of the application of double-entry bookkeeping to the conduct of accounts. By keeping the accounts pertaining to several typical forms of business, practice is afforded in the technique of bookkeeping, and the development of various forms of principal and auxiliary books of account is illustrated. Attention is given to the proper determination and disposition of profits; adjustments for accruals and deferred items; depreciation; the construction of balance sheets and income accounts. This work is conducted in laboratory exercises amounting to six hours a week.

(c) The final part of the course is devoted to studies of published reports of corporations. Comparisons and criticisms are made of the accounting forms and usages reflected in the statements. Statements are analyzed and their utility is considered from several points of view. Lectures, readings and problems.

C and D. *Accounting Principles, Problems and Analysis.*
Professor GRAY. Second Year, First and Second Semesters, 2 hrs.

A study of the legal and economic aspects of accounting, supplemented by assigned problems and bookkeeping exercises. It is the aim of these courses both to broaden and to intensify the knowledge gained in the first year.

(a) In considering the requirements of sound accounting, emphasis is placed upon the varying significance of accounting principles from the points of view of the business executive, the investor, the creditor, and the public. Attention is directed to controversial questions of accounting practice with respect to differences in the established customs of various branches of business, in statutory requirements, in legal decisions, and in the regulations of public commissions. Further study is made of the principles of valuation; phases of earnings, income and profits; problems of partnership and corporation accounting; depreciation; the elements of cost accounting, etc.

(b) Parallel with the above studies, problems and exercises are assigned to afford practice in the application of principles, in the use of the various types of accounts, and in the analysis of accounts.

(c) Students preparing to enter a particular business are encouraged to undertake study of the accounting problems and methods peculiar to that business. Such work is usually done in connection with the thesis.

E. *Cost Accounting.*
Professor GRAY. Second Year, First Semester, 2 hrs.

An elective course open to men who intend to enter the profession of accountancy and to men who desire a more thorough knowledge of cost accounting than is afforded by the required courses.

An exposition of the utility of cost accounts; the elements and units of cost in various types of business; sources of cost data; measurement of direct costs; methods of apportioning indirect expenses; costs in terms of units of product, factors in production, and elements of cost; the organization of cost systems; stores, labor, expense, and production records; the utilization of cost data; studies and reports of cost systems in various branches of business.

F. *Special Studies in Accounting.*
Professor GRAY. Second Year, Second Semester, 2 hrs.

An elective course, open only to men of aptitude who desire special preparation for the profession of accountancy or for positions as account-

ing officers. The course is concerned with those matters of accounting technique of interest more to the practicing accountant than to the business man. It is designed primarily as a preparation for intelligent apprenticeship in accountancy.

(a) Special problems of partnership and corporation accounting; joint ventures and consignments; accounts of receiverships, realization and liquidation; estate accounting; investment accounts; public service accounts.

(b) Practice in devising accounting systems: sources of accounting data; classification of accounts; development of the accounting structure; adaptation of forms and records of account; controlling accounts, etc.

(c) A survey of auditing procedure: kinds of audit and their objects; devices for the detection and prevention of fraud; methods of an audit; audit reports.

MODERN LANGUAGE

A. *Commercial French.*

A. *Commercial German.*

A. *Commercial Spanish.*

Professor MURRAY.

First Year, First Semester, 2 hrs.

These courses aim to increase the student's knowledge of the grammatical structure of the language and his knowledge of the common idioms, and to familiarize him in particular with the abbreviations, vocabulary and idioms of trade and commerce.

Selected reading of trade reports, advertisements and circulars; business letters are studied, analyzed, and used as models for written exercises.

B. *Commercial French.*

B. *Commercial German.*

B. *Commercial Spanish.*

Professor MURRAY.

First Year, Second Semester, 2 hrs.

These courses are continuations of the first semester courses, but include also a study of the technical forms and methods of foreign correspondence, catalogues, price-lists, etc., supplemented by oral exercises in dictation and pronunciation.

- C. *Commercial French.*
- C. *Commercial German.*
- C. *Commercial Spanish.*

Professor MURRAY.

Second Year, First Semester, 2 hrs.

Studies of the more technical forms, documents and letters used in foreign trade transactions. Bills of lading, invoices, checks, drafts, letters of credit, etc., are used as models to illustrate the trading practices of France, Germany and Spain.

- D. *Commercial French.*
- D. *Commercial German.*
- D. *Commercial Spanish.*

Professor MURRAY.

Second Year, Second Semester, 2 hrs.

These courses are continuations of the work of the first semester, with more emphasis on the spoken language. They include exercises in taking rapid dictation, rendering English at sight into the foreign language, and conversation in the form of discussions on topics previously assigned.

STATISTICS

- A. *Elementary Statistics.*

Professor PERSON.

First Year, First Semester, 2 hrs.

The purpose of this course is to acquaint the student with statistical principles and methods and, through assigned problems, to give him practice in their application. Among the topics discussed are: the making of schedules; the collection and tabulation of data; the different kinds of averages and their uses; frequency curves; the normal curve of distribution; correlation; probable errors; accuracy; interpolation; the graphic method; the use of statistics in economics, sociology, biology, engineering, and particularly in business.

King's *Elements of Statistical Method*; assigned readings in Yule's *Introduction to Statistics* and Bowley's *Elements of Statistics*; lectures; assigned Problems.

B. Business Statistics.

Professor PERSON.

First Year, Second Semester, 2 hrs.

This course assumes such knowledge of statistical principles and methods as is afforded by the course described above, and proceeds to an investigation of the uses of statistics in various types of business, particularly in the fields of banking and investments, manufacturing, and wholesale and retail distribution. Among the topics discussed are: statistics in the sales department; in the purchasing department; in the production department; in the advertising department; in the credit department; fundamental statistics of business conditions. In connection with this last topic bank clearings, business failures, railroad earnings, commodity prices and production, imports and exports, gold movements, bank loans, deposits, and reserves, money rates, and so on, are investigated as barometers of business conditions. Lectures and assigned problems.

C. Advanced Business Statistics.

Professor PERSON.

Second Year, Second Semester, 2 hrs.

This course is designed particularly for men who desire to equip themselves for statistical research in the service of business concerns. It comprises a study of the more complex statistical methods and, by their application in the solution of actual problems, an investigation of the extent to which data accumulated by large business concerns may be made to yield principles to guide the executive force in the conduct of business under varying general business conditions.

LAW

A. Commercial Law.

Professor LYON.

Second Year, First Semester, 4 hrs.

An outline of the main principles of the law of contracts; agency; bailments, the obligations of common carriers and telegraph companies; bankruptcy and insolvency; insurance; negotiable instruments; partnerships, joint-stock companies and corporations; the acquisition and transfer of property, and sales of personal property.

The course gives such acquaintance with the law as a business man should have in the ordinary conduct of his affairs.

BUSINESS ORGANIZATION AND MANAGEMENT*A and B. Business Procedure.*

Professor GRAY. First Year, First and Second Semesters, 1 hr.

A review of conventional business practices, a knowledge of which becomes immediately practical in business experience; the mathematics and terminology of cash and trade discounts, commissions, interest and discounts, etc.; forms and uses of checks, notes, drafts, and other instruments of credit and exchange; shipping documents; the nature of the services performed by banking institutions and customary rules of procedure; the various forms of insurance and the terms of their contracts; mercantile and credit agencies; business correspondence.

C. Principles of Organization, Administration and Management.

Professor PERSON. First Year, Second Semester, 3 hrs.

This course offers a general survey of the field of organization, administration and management, and lays a foundation for later courses which consider in detail problems of business policy and the mechanism, methods and problems of the management of administrative units in various types of business.

- (a) Functions of various types of business—mercantile, manufacturing and other.
- (b) Determination of the general policy and scope of operation of a business.
- (c) Problems of location—general and specific.
- (d) The adaptation of the plant to the business—site, size, construction form.
- (e) Problems of equipment—machinery vs. labor, labor-saving devices.
- (f) Problems of organization—types of organization, definition of authority and responsibility, functions and organization of principal and subsidiary departments.
- (g) Problems of management—a survey of the problems of the supervision and conduct of the productive processes of principal and subsidiary departments.
- (h) General problems of administrative policy.

D. Principles and Mechanism of Scientific Management.

PROFESSORS PERSON and SHELTON.

Second Year, First Semester, 2 hrs.

A course of readings, reports, discussions, laboratory experiments and field work. The laboratory and field work are continued in combination with courses E and F described below.

(a) An intensive study of the principles and mechanism of Scientific Management as presented in the writings of Taylor, Emerson, Gantt, Parkhurst and other authorities.

(b) Laboratory practice in motion study with the stop-watch and in micro-motion study with the camera in the laboratory of the Tuck School.

(c) For those students specially interested, the assignment of definite problems in management, found to exist in plants in the vicinity of the Tuck School, for investigation and constructive report.

E. Administration and Management in Distribution.

Professor SHELTON.

Second Year, Second Semester, 3 hrs.

An intensive, comparative study of administrative problems, and of the mechanism, methods and problems of management of administrative units, in typical distributive industries—retail merchandising, jobbing and wholesaling, selling departments of manufacturing plants, advertising departments, advertising agencies, etc. The course considers

I. Problems of administrative policy concerned with the

- (a) Determination of the nature of goods and services to be offered.
- (b) Relations of the business to the consuming market.
- (c) Relations of the business to the buying market.
- (d) Relations of the administration to the personnel of the organization.
- (e) Publicity methods and media.

II. Problems of supervision and management of departments offering goods and services.

- (a) Merchandising operations—buying, the supervision of stock, of resources, of competition, of subsidiary manufacturing.

(b) Publicity—department or agency advertising, advertising media, psychology and methods.

(c) Plant and service—mechanical plant and equipment service and employees, prevention of accidents and illness, insurance and protection, shipping and delivery.

(d) Finance and accounting—accounting, auditing, credits, collections.

(e) Records and statistics.

(f) Sales force—selection, training, direction and supervision.

F. Administration and Management in Manufacturing.

Professor PERSON.

Second Year, Second Semester, 3 hrs.

An intensive, comparative study of administrative problems, and of the mechanism, methods and problems of management of administrative units, in typical manufacturing industries and allied industries—machine, textile, boot and shoe, and other factory industries; lumbering and milling, mining and smelting, etc. This course considers some of the problems considered in the preceding course, but from the point of view of the manufacturing instead of the distributing organization. It considers

I. Problems of administrative policy concerned with

(a) Scope and size of business, capitalization, financial policy, competition.

(b) Relations of the business to the consuming, raw material and supplies markets.

(c) Relations of the administration to the personnel of the organization.

II. Problems of supervision and management of departments productive of goods.

(a) The general management.

(b) The financial department.

(c) The accounting department.

(d) The engineering, drafting and similar departments.

(e) The department of experiments and tests.

(f) The planning room.

(g) The stores, tool and stock room.

(h) The shops.

FINANCIAL ORGANIZATION AND ADMINISTRATION*A. Industrial Organization.*

Professor DIXON.

First Year, First Semester, 3 hrs.

Historical development and analysis of the different forms of industrial organization, including the partnership, joint-stock company, and the corporation, and the later developments, such as the pool, trust, combination, and holding company. Critical discussion of the advantages and disadvantages of recent forms of business organization illustrated by documents. Elements of corporation finance, with special reference to organization and management. The evils of corporate organization, such as fraudulent promotion, over-capitalization, and manipulation. Public policy toward corporations, with special reference to taxation. Commerce clause of the Federal Constitution and its growing importance. A brief consideration of public-service corporations with especial reference to municipal utilities. Lectures, text-books and discussions.

B. Corporation Finance and Investments.

Professor LYON.

Second Year, First Semester, 4 hrs.

(a) The instruments of finance, an analysis of the various forms of securities devised for the purpose of financing corporations; trading on equity, an examination of the principles governing the proportions in which bonds and other obligations of indebtedness, preferred and common stocks, may be issued; financing an expansion, the securities and methods used in financing extensions, branches, combinations and consolidations; bankruptcies, receiverships and reorganizations, amortization, the principles governing the retirement of corporate indebtedness.

(b) The market for corporate securities; study of the principal stock exchanges of the United States and Europe, their organization and methods; functions of speculation; the securities traded in, requirements for listed and unlisted securities; stock market quotations and statistics; brokerage; classes of brokers; details of transactions with customers; the marketing of investment securities.

(c) The general principles of investment; classification of investment securities; the analysis of securities for their investment value; study of the investments of institutions, such as savings banks, insurance companies and educational institutions.

COMMERCE AND INDUSTRY

A. Resources and Industries of the United States.

Professor PERSON.

First year, First Semester, 4 hrs.

(a) A brief review of the fundamental conditions of the industrial development of the United States, such as geographical, geological, and climatic factors; the extent and distribution of resources; industrial traits; labor conditions; forms of industrial organization.

(b) A detailed study of the development and present condition of the principal industries of the United States. Industries are considered in related groups: wheat production and flour milling; cotton production and cotton manufacture; the production of vegetables and fruits and the canning industry; iron mining, pig iron production, and iron and steel manufacture, etc. Each is considered from the point of view of the development of technical processes; forms of organization and methods of management; the times, places and methods of marketing products, etc.

B. Resources, Industries and Commerce of Foreign Countries.

Mr. SMITH.

First Year, Second Semester, 4 hrs.

This course considers the resources, industries and commerce of the principal countries of the world other than the United States. The countries of Western and Central Europe, and certain other important countries like Russia, China, Japan, India, Canada, and Australia are particularly emphasized; other countries are considered less thoroughly. Each is considered with reference to the physical, social and political conditions determining the nature of the resources and industries: the technique of production as compared with that of similar industries in the United States; industrial aptitudes and business methods; the nature of and the methods of conducting foreign commerce, etc.

C. Functions, Organization and Activities of Commercial Bodies.

Mr. SMITH.

Second Year, First Semester, 2 hrs.

A course designed for students of aptitude preparing to enter the service of chambers of commerce, boards of trade, trade associations, or to undertake other commercial executive work; to acquaint them with the development of such institutions, their functions, organization and

routine work, and with the application of business principles to the work of the commercial executive. Detailed study of routine work or special problems is confined to those problems which confront every organization, which are of great importance, and the solutions of which have been thoroughly worked out, such as increasing the membership, financing the work, attraction of industries, etc. This study is carried on in connection with practical experience in nearby commercial organizations.

Those students who, in the opinion of the instructor, have sufficient interest in, and aptitude for the work, may continue their study through the second semester. This work consists of

(a) a continuation of the practical experience in nearby organizations; (b) the assignment of a special problem of some organization, the solution of which must be presented to fulfil the thesis requirement; and (c) more detailed studies of problems and routine.

D. Foreign Commerce of the United States.

Mr. SMITH.

Second Year, Second Semester, 2 hrs.

This course is intended for students who desire to equip themselves for service in trading houses, chambers of commerce, or in export departments of manufacturing concerns. It comprises:

(a) General study of foreign commerce: trade areas and routes; shipping facilities and regulations; rate making and traffic promotion; marine insurance; port development, equipment and management; and laws influencing foreign trade.

(b) Detailed study of American commerce, showing the trend of import and export trade, present and prospective markets, and raw material sources.

(c) Detailed study of methods and forms employed by American exporters, including determination of sales methods and selection of agents, export agencies, advertising, use of cable codes, orders, packing, formalities of shipping, extension of credits, and collections.

E. Resources, Industries and Commerce of Latin America.

Mr. SMITH.

Second Year, Second Semester, 2 hrs.

This course is designed for advanced students who plan to equip themselves for service in trading houses, chambers of commerce, or in export departments of manufacturing concerns. It investigates exhaustively the physical, social and political conditions determining

the nature of the extractive, manufacturing and commercial industries of the Latin American countries; the probabilities of their future development; the possibilities of extending the trade of the United States with these countries; the methods by which such extension of trade is most likely to be accomplished; the factors determining the trade strength of England and Germany in these markets; and the questions of American branch banks, improved steamship service, demand for American capital investment, extension of credits, and sales agencies.

BANKING

A. Money and Banking.

Professor PHILLIPS.

First Year, First Semester, 3 hrs.

The origin and development of money. A discussion of the most important features of the institutions of money, banking, and credit, with special reference to their function in the economic life of today. The history of banking in the United States with an outline of the monetary and banking systems of the most important foreign countries. Discussion of practical problems, such as the relation between money supply and prices, bi-metallism, inconvertible paper currency, the relation of the sub-treasury system to the supply of money, proposed modifications in the national banking laws.

B. Banking Problems and Relations.

Professor PHILLIPS.

Second Year, First Semester, 2 hrs.

A required course intended to supplement previous study in money and banking and, for men who are to specialize in banking, to provide an introduction to their later study of banking practice and administration. The course considers

(a) General problems of banking of importance not only to bankers, but to business men through their banking relations: currency reform legislation; utilization of banking credit; distribution of reserves; coördination of banking institutions; interdependence of banking and business; banking competition; supervision and examination of banks; relations of clearing houses; the payment of interest on deposits, etc.

(b) The New York money market; a survey of the money market in New York, London and Paris; analysis of current fluctuations in money rates; the relation of the money market to investment, speculation and general business.

C. Banking Practice.

Professor PHILLIPS.

Second Year, Second Semester, 2 hrs.

This course discusses the work of banking institutions with reference to problems and methods of organization and administration. It is designed to meet the needs of men who intend to enter banking.

The organization of banks; stockholders' rights and liabilities; general administration; duties of bank officers; deposits; checks; overdrafts; credits; the basis of credits; the credit department; dealings in stocks and bonds, commercial paper and real estate; the work of clearing houses; trust companies; their functions as banks; as trustees, as registrars of securities, as fiscal agents; savings banks, their business and investments.

C. Foreign Exchange.

Professor PHILLIPS.

Second Year, Second Semester, 2 hrs.

Discussion of the sources of supply and demand in foreign exchange; the balance of trade; influences affecting rates; methods of buying and selling exchange; London as the world's settling place; discussion of bankers' checks; documentary acceptance and payment bills; clean bills; finance bills; cable transfers; commercial letters of credit; travelers' letters of credit; methods of handling the foreign account; the London, Paris and Berlin accounts; gold shipments; arbitrage; tracing through specific transactions with documents used. The course is especially for men planning to enter foreign exchange banking, general banking, or foreign trade.

TRANSPORTATION*A. Transportation.*

Professor DIXON.

First Year, Second Semester, 3 hrs.

Steam railroads. (a) The railroad problem of the United States, including theories of rates, combination and pooling, consolidation, community of ownership, and government ownership or control, involving a careful consideration of the work of the Interstate Commerce Commission and of state commission. (b) A comparative study of the railroad systems of other countries, especially England, Germany, France, Canada, and the Australian Commonwealth, with a consideration of the economic significance of the world's great railroad systems.

Transportation and communication other than by steam railroads. (a) Lake, river, and canal transportation in the United States and other countries. (b) Ocean transportation with special reference to its relation to the transportation systems of various countries. (c) Inter-urban railways and their growing competitive power, telegraphs, telephones, and cables. Lectures, text-books, and discussions.

B. *Railroad Statistics.*

Professor DIXON.

Second Year, Second Semester, 2 hrs.

A discussion of the statistical units and averages employed by the railways in the expression of traffic and operating results, and the application of these units and averages to the actual situation on selected roads. The purpose is to assist students to a more intelligent interpretation of railway reports. Lectures combined with the use of statistical reports of the Interstate Commerce Commission and selected state commissions and the annual reports of railway corporations to their stockholders.

SUPPLEMENTARY LECTURES

In addition to the regular courses of instruction, an important part of the work of the School is conducted by a staff of non-resident lecturers qualified by expert business experience to discuss with authority practical problems of business administration. The same importance is attached to the lectures as to the regular courses.

THESIS

One of the requirements for the degree of Master of Commercial Science is a thesis. This thesis must represent the investigation of some business problem, preferably a problem pertinent to the field of business which the student intends to enter. Each student is assigned to an instructor who personally directs his investigations. The requirement of a thesis is intended to give the instructor who is directing the investigation of a student the *opportunity for personal instruction, amounting to several hours per week, in that field to which the subject of the thesis pertains, and in which the student is specializing.*

TEACHERS' SEMINAR

A seminar for students preparing to teach commercial subjects, conducted by members of the faculty of the Tuck School, in which the various subjects studied in the Tuck School are reviewed. A critical study is made of standard text-books and of methods of selection and presentation of the most important topics.

EQUIPMENT

BUILDING. A second gift from Mr. Tuck provided the funds for the construction and maintenance of a building specially adapted to the work of the School. Tuck Hall is three stories high, the main portion one hundred feet front by fifty feet, with an addition at the rear sixty by forty feet of the same height as the main building. The first floor contains the administrative offices, instructors' offices, recitation rooms, a seminary room, and a lecture room equipped with projecting and reflecting apparatus and seating two hundred and seventy-eight persons. The second floor contains additional recitation rooms, offices, an accounting room, and a library containing books, periodical literature, trade papers, and other material pertinent to the work of the School. The third floor of the building is devoted principally to the uses of a commercial museum. On this floor are also a dark room, a work room for preparing exhibits and charts, and, opening into the museum, a recitation room in which are conducted those classes requiring special use of the museum.

LIBRARY. The Library of the Tuck School contains some ten thousand volumes on subjects of an industrial and commercial nature. Because its instruction is characterized by independent investigation on the part of the student, the School gives particular attention to the accumulation of technical periodical literature. The library contains files, in some cases practically complete, of commercial, financial, and trade publications, such as *The Commercial and Financial Chronicle*, *The London Economist*, *The Statist*, *L'Economiste Français*, *The London Bankers' Magazine*, *The New York Bankers' Magazine*, *Bradstreets*, *The Railway Age Gazette*, *The Journal of the Institute of Actuaries*; the consular reports of the United States, Great Britain, Germany, France, Belgium, and Austria Hungary; the reports of chambers of commerce, produce exchanges, etc., of the larger cities; the reports of state banking, insurance, railroad, and industrial commissioners; and the govern-

ment reports, relating to industry and commerce, of the United States and many foreign governments. The general library of Dartmouth College in Wilson Hall is available for Tuck School students.

COMMERCIAL MUSEUM. The School plans to make its commercial museum an important instrument of instruction. It contains exhibits of domestic industries, comprising samples of raw material, partly finished and finished products, by-products, specimens, showing methods of packing, photographs, charts, maps, and other illustrative material.

LANTERN SLIDES. The School has about two thousand lantern slides for use in instruction. The number is being constantly increased, as the School manufactures the slides for its own use.

APPARATUS. The School is equipped with two combination projecting-reflecting lanterns, a Comptometer, and a Thacher's Calculating Machine.

GENERAL REGULATIONS

ELECTIONS. Upon admission to the First Year each student must indicate his choice of a modern language; Commercial French or German or Spanish. All other courses are prescribed.

A record of First Year students who are candidates for a degree in Dartmouth College is transmitted by the Director to the Registrar of the College.

STANDING. The standing of a student is his standing for the group elected: *i. e.*, is the average of the marks for the several courses making up the group, each course having weight in proportion to the number of exercises assigned to it.

Of a student who is a candidate for a degree in the College, the only mark reported by the School to the Registrar of the College is the group mark computed as described above.

A student who fails to maintain a standing of 70 per cent may be dismissed from the School.

ABSENCE. Since the School desires its students to adopt the business principle that attendance at all exercises is a primary obligation and that absences should be only such as are imperatively necessary, and since no provision is made by the School for excused absences or special reward for attendance, an excessive number of absences will render a student liable to dismissal from the School. Whenever a student is necessarily absent, it is expected that he advise the Director and request that a statement of the reason for the absence be put on record.

For First Year students who are also enrolled as Seniors in the College, the regulations of the Faculty of the College will govern attendance at chapel exercises.

EXAMINATIONS. Examinations are held at the end of each semester. In the Second Year examinations in courses which do not extend through the semester are held at the conclusion of each course.

The final examinations of the Second Year are both oral and written, and cover the work of the year. These oral examinations are conducted in the presence of a committee of the Faculty by the instructor in whose department the principal part of the work of the student falls.

DEGREE. The degree Master of Commercial Science is conferred upon candidates who have completed the work of the School, and have with credit passed all examinations and presented and defended a satisfactory thesis.

TUITION AND FEES. The tuition is one hundred and forty dollars. This must be paid in equal semi-annual installments on October 1st and March 1st of each year. A fee of ten dollars is charged for the degree. This and all other College fees must in all cases be paid into the College treasury before the candidate is permitted to take his final oral examination.

THESIS. The subject of the thesis must be announced to the Director as early as the 15th of November of the year in which the student expects to take the degree.

The thesis must be completed and put in the hands of the Director as early as the 1st of April of that year.

The thesis, after acceptance by the instructor concerned, must be read and defended before a committee of the Faculty.

Every candidate for the degree shall deposit a typewritten copy of his thesis in the library of the School before being permitted to take his final oral examination for the degree.

MISCELLANEOUS INFORMATION

EXPENSES. Tuition amounts to one hundred and forty dollars. Board may be secured for four to six dollars a week; room and light for fifty to one hundred and fifty dollars a year.

The total expenses of the student will vary from four hundred and fifty to six hundred and fifty dollars per year, the most variable elements being room and board.

REMUNERATIVE WORK. Several positions, requiring services connected with the administration of the School, are open to Tuck School students.

Applications must be made on blanks furnished by the Director, which must be accompanied by records of attainments and testimonials in respect to character and business aptitude.

For further information, address

HARLOW S. PERSON, Director,
or W. R. GRAY, Secretary.

THE TUCK SCHOOL CONFERENCES

A series of conferences, devoted to the discussion of important questions pertaining to the field of business administration, are held at Hanover under the auspices of the School. The conferences are projected for the benefit of Tuck School students and business men of New Hampshire and neighboring States.

The First Conference was held on October 12, 13 and 14, 1911. The program was devoted to addresses and discussions of Scientific Management, as follows:

FIRST SESSION

THE PRINCIPLES OF SCIENTIFIC MANAGEMENT

Introduction by the Chairman

Honorable Henry B. Quincy, ex-Governor of New Hampshire

Address of Welcome

Ernest Fox Nichols, LL.D., President of Dartmouth College

The Principles of Scientific Management

Frederick W. Taylor, Consulting Engineer, Philadelphia

SECOND SESSION

SCIENTIFIC MANAGEMENT AND THE LABORER

Introduction by the Chairman

Benjamin A. Kimball, President of the Mechanicks National Bank, and President of the Concord and Montreal Railroad, Concord, N. H.

The Task and the Day's Work

Henry L. Gantt, Consulting Engineer, New York

The Opportunity of Labor Under Scientific Management

Harrington Emerson, The Emerson Company, Consulting Engineers, New York

THIRD SESSION

SCIENTIFIC MANAGEMENT AND THE MANAGER

Introduction by the Chairman

Charles H. Jones, President of The Commonwealth Shoe and Leather Co., Boston

Types of Management: Unsystematized, Systematized and Scientific

Henry P. Kendall, Manager of the Plimpton Press, Norwood, Mass.

The Spirit in Which Scientific Management Should be Approached

James M. Dodge, Chairman of the Board, The Link-Belt Co., Nicetown, Philadelphia

FOURTH SESSION

DISCUSSION OF THE APPLICABILITY OF SCIENTIFIC MANAGEMENT IN CERTAIN INDUSTRIES

Machine Manufacture

Chairman, H. K. Hathaway, Vice-President of The Tabor Mfg. Co., Philadelphia

Textile Manufacture

Chairman, Eugene Szepesi, Szepesi & Farr, Textile Engineers, Boston
Shoe Manufacture

Chairman, Charles H. Jones, President of the Commonwealth Shoe
and Leather Co., Boston

Printing and Publishing

Chairman, Morris Llewellyn Cooke, Consulting Engineer, Philadelphia

Pulp and Paper Manufacture

Chairman, Miner Chipman, The Emerson Company, Consulting
Engineers, New York

Lumbering and the Management of Timber Properties

Chairman, W. R. Brown, The Berlin Mills Co., Berlin, N. H.

Academic Efficiency

Chairman, Edwin F. Gay, Dean of the Graduate School of Busi-
ness Administration, Harvard University

FIFTH SESSION

SCIENTIFIC MANAGEMENT AND GOVERNMENT

Introduction by the Chairman

Honorable Robert P. Bass, Governor of New Hampshire

The Application of Scientific Management to the Activities of State
and Municipal Government

Frederick A. Cleveland, Chairman of the President's Commission
on Economy and Efficiency

SIXTH SESSION

PHASES OF SCIENTIFIC MANAGEMENT

Introduction by the Chairman

Morris Llewellyn Cooke, Consulting Engineer, Philadelphia

Symposium

H. K. Hathaway, Vice-President of The Tabor Manufacturing Co.,
Philadelphia

Sanford E. Thompson, Consulting Engineer, Newton Highlands,
Mass.

Carl J. Barth, Consulting Engineer, Philadelphia

Hon. William C. Redfield, Member of Congress

Mrs. Frank B. Gilbreth

Frank B. Gilbreth, Vice-President of the Society for Promoting
Engineering Education

Edward Robinson, Professor of Mechanical Engineering, Univer-
sity of Vermont

Arthur Gordon Webster, Professor of Physics, Clark University

Hollis Godfrey, Consulting Engineer, West Medford, Mass.

Frederick W. Taylor, Consulting Engineer, Philadelphia

The proceedings of the conference have been published in a book,
8vo., cloth, 387 pages, \$2.50 net. By mail, \$2.75.

DIRECTORY

OF THOSE WHO HAVE COMPLETED THE COURSE OFFERED BY THE AMOS TUCK SCHOOL OF ADMINISTRATION AND FINANCE

- ALLEN, ARTHUR PRATT.** A.B., 1910; M.C.S., 1911.
Purchasing Agent, The Plimpton Press, Norwood, Mass.
- AMIDON, LUEY EARLE CLEVELAND.** B.S., 1908; M.C.S., 1909.
Teacher, Commercial Dept., Rome High School, Rome, Ga.
- ATWOOD, HOWARD DELOZ.** B.S., 1905; M.C.S. 1906.
Superintendent, United Fruit Co., Bocas del Toro, Panama.
- BARKER, EDWARD BELL.** A.B., 1907; M.C.S., 1908.
Traffic Engineering Assistant, American Telephone & Telegraph Co.,
New York City.
- BAXTER, JOHN WELLES.** A.B., 1912; M.C.S., 1913.
Clerk, Travelers' Insurance Co., Hartford, Conn.
- BELLOWS, HAROLD ADAMS.** B.S., 1912; M.C.S., 1913.
Broker, C. W. Whittier & Bro., Real Estate Brokers, Boston, Mass.
- BIERY, WALTER LAWRENCE.** A.B., 1912; M.C.S., 1913.
Solicitor of Advertising, The Butterick Publishing Co., New York
City.
- BLAIR, WALTER.** A.B., 1900; M.C.S., 1901.
Assistant Manager, Brandt Leather Co., Norwood, Mass.
- BLAKELY, JOSEPH WING.** B.S., 1908; M.C.S., 1909.
Merchant, Montpelier, Vt.
- BRACKETT, ROY.** A.B., 1906; M.C.S., 1907.
Lawyer, Boston, Mass.
- BROWN, PHILIP LOWELL.** A.B., 1903; SPECIAL STUDENT 1903.
United Shoe Machinery Co., Boston, Mass.
- BROWN, THURMOND.** B.S., 1906; M.C.S., 1907.
Salesman, Westerhaver Bros., Real Estate, Prince Rupert, B. C.
- BROWN, WALTER EDWARD.** B.S., 1909; M.C.S., 1909.
Port Superintendent, United Fruit Co., Puerto Barrios, Guatemala.
- BRUNER, WARREN DAY.** A.B., 1912; M.C.S., 1913.
Clerk, New York Telephone Co., New York City.

- BRYANT, DONALD RUNNELLS. A.B., 1910; M.C.S., 1911.
Assistant Secretary & Assistant Cashier, Pullman Trust & Savings Bank, Pullman, Ill.
- BURLEIGH, NATHANIEL GEORGE. A.B., 1911; M.C.S., 1912.
Acting Chief Clerk, Div. One, Boston Elevated Railway Co., Boston, Mass.
- CARLETON, RALPH HOWARD. A.B., 1902; M.C.S., 1903.
Assistant Auditor Disbursements, Chicago, Rock Island & Pacific Railway Co., Chicago, Ill.
- CHEDEL, ROBERT WHITCOMB. A.B., 1908; M.C.S., 1909.
Berlin Mills Co., Berlin, N. H.
- CLARK, JOSHUA BERLIN. A.B., 1911; SPECIAL STUDENT, 1911.
Supervisor of Agents, State Mutual Life Insurance Co., Boston, Mass.
- CUTTER, VICTOR MACUMBER. B.L., 1903; M.C.S., 1904.
Manager, Guatemala Division, United Fruit Co., Puerto Barrios, Guatemala.
- DALRYMPLE, ALBERT HERMAN. A.B., 1902; M.C.S., 1903.
Agent, Employers' Liability Assurance Corp'n, Ltd., of London., Boston, Mass.
- DORR, PERCY ORRIN. A.B., 1902; M.C.S., 1903.
Sales Manager and Partner, N. W. Harris & Co., Springfield, Mass.
- DRAKE, JAMES FRANK. A.B., 1902; M.C.S., 1903.
Secretary and Director, Phelps Publishing Co., Springfield, Mass.
- ECKSTROM, PAUL FREDERIC THEODORE. B.L., 1901; M.C.S., 1902.
Auditor, State Bank of Chicago, Chicago, Ill.
- EDGERTON, HALSEY CHARLES. B.S., 1906; M.C.S., 1907.
Auditor, Dartmouth College, Hanover, N. H.
- EDWARDS, WILLIAM BENJAMIN. SPECIAL STUDENT, 1901.
Cody, Wyoming.
- EMERSON, SETH AUSTIN. A.B., 1911; M.C.S., 1912.
Clerk, Foreign Exchange Dept., National City Bank, New York City.
- FITZGERALD, AMOS HAROLD. B.L., 1902; M.C.S., 1903.
Mathematician, The Prudential Insurance Co., Newark, N. J.
- FOSTER, OLIVER WALLACE. A.B., 1900; M.C.S., 1901.
Buyer, Muller, MacLean & Co. Export Representatives, New York City.
- FRENCH, FRANK PAYSON. B.S., 1902; M.C.S., 1905.
Clerk, Auditing Dept., Boston & Maine R. R., Boston, Mass.
- FRENCH, IRVING JOSEPH. B.L., 1901; M.C.S., 1903.
New England Representative, The Associated Sunday Magazines, Boston, Mass.

- FULLINGTON, CHRISTOPHER CHADWICK. B.L., 1902; M.C.S., 1903.
Ass't Secretary, Prince Rupert Real Estate Exchange, Prince Rupert,
B. C.
- GERRY, LOUIS CARDELL. C.P.A., A.B., 1907; M.C.S., 1908.
Treasurer, Federal Light & Traction Co., New York City.
- GIBSON, WALTER BURNAP. A.B., 1911; M.C.S., 1912.
Assistant Treasurer, Ponce Railway & Light Co., Ponce, P. R.
- GONYER, GEORGE FREDERICK. A.B., 1910; M.C.S., 1911.
Salesman, Meekins, Packard & Wheat, Merchants, Springfield, Mass.
- GRAY, JOHN HARVEY. B.S., 1908; M.C.S., 1909.
Sub-Accountant, International Banking Corporation, Hongkong,
China.
- GRAY, WILLIAM RENNELAER. B.L., 1904; M.C.S., 1905.
Secretary, and Assistant Professor of Accounting, The Amos Tuck
School, Dartmouth College, Hanover, N. H.
- GREENWOOD, FREDERICK. A.B. (UNIV. OF MONTANA), 1909; M.C.S.,
1910.
Receiving Teller, The Old National Bank, Spokane, Wash.
- GREENWOOD, GEORGE HERBERT. A.B. (UNIV. OF MONTANA), 1904;
M.C.S., 1905.
Assistant Cashier, The Old National Bank, Spokane, Wash.
- GOODRICH, ERNEST HERMAN. B.S., 1909; M.C.S., 1910.
Cost Clerk, Commonwealth Shoe & Leather Co., Boston, Mass.
- HALEY, HENRY THOMAS. B.S., 1907; M.C.S., 1908.
Manager, Royal River Mfg. Co., Cotton, Yarmouth, Me.
- HEALEY, WILLIAM NELSON. B.S., 1912; M.C.S., 1913.
Cashier, Dallas Railway & Power Co., Dallas, Texas.
- HOBART, HAROLD SAWTELLE. A.B., 1908; M.C.S., 1909.
Marble Grader, Vermont Marble Co., Proctor, Vt.
- HOWE, WILLIS DEARBORN. B.S., 1906; M.C.S., 1907.
Acting Manager, International Banking Corporation, Mexico City,
Mex.
- HOYT, GEORGE HERBERT. A.B., 1907; M.C.S., 1908.
President, Hoyt & Greene, Inc., Building & Investments, Berkeley,
Cal.
- HUEBENER, CURTIS EDWARD. B.S., 1908; M.C.S., 1909.
Rio Janeiro Electric Light Co., Rio Janeiro, Brazil.
- JORDAN, CHARLES, 2ND. A.B., 1911; M.C.S., 1912.
Salesman, Commonwealth Shoe & Leather Co., Boston, Mass.
- JORDAN, JOHN HAROLD. A.B., 1907; M.C.S., 1908.
Griess Pfleger Tanning Co., Chicago, Ill.

- KNIGHT, MORRIS EDWARD. A.B., 1912; M.C.S., 1913.
E. H. Rollins & Co., Bankers, Boston, Mass.
- KNOX, BENJAMIN CLEMENT. A.B., 1908; M.C.S., 1909.
Auditor, Middletown Car Co., Rio Janeiro, Brazil.
- LANE, HENRY RICHARDSON. A.B., 1907; M.C.S., 1909.
Ass't Merchandise Manager, Wm. Filene's Sons Co., Boston, Mass.
- LEAVITT, ARTHUR HOWLAND. A.B., 1907; SPECIAL STUDENT, 1909.
Assistant Turkish Secretary, American Embassy, Constantinople, Turkey.
- LOGAN, DONALD BRIGHAM. B.L., 1904; M.C.S., 1905.
Salesman, United States Envelope Co., Worcester, Mass.
- LUITWIELER, EDWARD BILLINGS. A.B., 1912; M.C.S., 1913.
Clerk, Commonwealth Shoe & Leather Co., Whitman, Mass.
- McMILLAN, ARTHUR DOUGLAS. A.B., 1908; M.C.S., 1909.
Member of Staff, Town Development Co., New York City.
- MERRIAM, JAMES ROBERT. A.B., 1905; M.C.S., 1906.
Financial Editor and Writer, *Review of Reviews*, *World's Work*, *Moody's Magazine*, *System*, New York City.
- MIDDLEBROOK, WILLIAM THEOPHILUS. A.B., 1912; M.C.S., 1913.
Rate Clerk, Great Northern Railway, St. Paul, Minn.
- MIFFLIN, ELGIN, JR. A.B. (UNIV. OF MICHIGAN), 1909.; M.C.S., 1910.
Advertising Manager, Hugh Lyons & Co., Store Equipment, Lansing, Mich.
- MINSCH, WILLIAM JOSEPH. A.B., 1907; M.C.S., 1908.
Bond Salesman, Lee, Higginson & Co., New York City.
- MORSE, RANSOM WESLEY. B.S., 1906; M.C.S., 1907.
Advertising Manager, *Worcester Telegram*, Worcester, Mass.
- MORTON, HENRY JORDAN. A.B., 1911; M.C.S., 1912.
Marwick, Mitchell, Peat & Co., Chartered Accountants, Chicago Ill.
- NICHOLS, CHESTER WARREN. A.B., 1908; SPECIAL STUDENT, 1911.
Ass't. to Commercial Engineer, Chesapeake & Potomac Telephone Co., Baltimore, Md.
- PAINE, RAYMOND ELDER. B.L., 1902; M.C.S., 1903.
Sub-Manager, William E. Peck & Co., Commission Merchants, Buenos Aires, Argentina.
- PARLIN, HOWARD SHEDD. A.B., 1911; M.C.S., 1912.
Clerk, Willet, Sears & Co., Boston, Mass.
- PHILBROOK, HENRY BROWN. B.S. (N. H. STATE COLLEGE), 1910;
M.C.S., 1912.
Accountant, The Carter Oil Co., Titusville, Pa.